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EXAMINER	
SHELEHEDA, JAMES R	

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,376	RODRIGUEZ ET AL.	
	Examiner	Art Unit	
	James Sheleheda	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-58 and 60-128* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-58 and 60-128* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 104-109, 110, 119, 121 and 127 are rejected under 35 U.S.C. 102(e) as being anticipated by Daniels (6,973,669).

As to claims 109 and 121, Daniels discloses a hyper-linked data caching system, and corresponding method, (column 4, lines 23-38) comprising:

a memory (column 23, lines 39-42); and

a processor (24) configured with the memory (controlling the system; column 15, lines 58-63) to cache hyper-linked data (column 24, lines 13-34) in a data structure indexed by the time of presentation with a corresponding media content instance (received and stored in order; column 4, lines 23-38 and column 24, lines 13-34).

As to claim 110, Daniels discloses wherein logic is further configured to retrieve hyper-linked data corresponding to a media content instance before the presentation of the media content instance (column 24, lines 11-34).

As to claims 119 and 127, Daniels discloses wherein the hyper-linked data includes hyper-linked media content (column 24, lines 11-38).

As to claim 104, Daniels discloses a media client device (Figs. 1 and 2) comprising:

a memory (column 15, lines 58-63 and column 23, lines 39-42);

a plurality of tuners (column 25, lines 3-13); and

a processor configured with the memory (controlling the system; column 15, lines 58-63) to transition from supporting playback of media content from a virtual file system (column 24, lines 11-24 and column 23, lines 39-50) to a combination of the virtual file system and a local file system depending on the availability of the local file system (displaying remote Internet web pages and local stored pages; column 24, lines 11-24 and column 23, lines 39-50).

As to claim 105, Daniels discloses wherein the processor is further configured with the memory to substantially simultaneously receive, decode and composite into a single display presentation the audio, video, graphical and textual data of a first TV channel (column 6, lines 27-46) while substantially simultaneously storing in the local file system the audio, video, graphical and textual data of the first TV channel (column 6, lines 27-46).

As to claim 106, Daniels discloses wherein the processor is further configured with the memory to substantially simultaneously receive, decode and composite into a single display presentation the audio, video, graphical and textual data of a first TV channel (column 7, line 38-column 8, line 7) while substantially simultaneously reading, decoding, and compositing into the same single display presentation the audio, video, graphical and textual data of a second TV channel, previously stored in the local file system, on a real time basis (column 7, line 38-column 8, line 7).

As to claim 107, Daniels discloses wherein the processor is further configured with the memory to substantially simultaneously receive, decode and composite into a single display presentation the audio, video, graphical and textual data of a first TV channel (column 7, line 38-column 8, line 7) while substantially simultaneously reading, decoding, and compositing into the same single display presentation the audio, video, graphical and textual data of a second TV channel, previously stored in the local file system, on a real time basis (column 7, line 38-column 8, line 7), while substantially simultaneously reading media content and data corresponding to a third TV channel that was previously stored in the local file system (column 7, line 38-column 8, line 7) and decoding, and compositing into a single display presentation the audio, video, graphical and textual data of the third TV channel (column 7, line 38-column 8, line 7).

As to claim 108, Daniels discloses wherein the processor is further configured with the memory to retrieve previously stored digital audio in the local file system

(column 6, lines 47-59 and column 7, lines 38-41), and playing back the audio to complement a first TV channel (simultaneously playback of two different content; column 7, lines 38-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14, 16-20, 58-63, 69-75 and 77-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payton (5,790,935) (of record) in view of Norwood (5,983,316).

As to claim 1, Payton discloses a dual mode file system in a subscriber network television system (Fig. 2), comprising:

a digital home communication terminal (28) comprising:

a memory with logic (software inherently present in memory to control the local server, 28; column 6, lines 1-50);

a processor configured with the logic (inherently present to control the local server, 28; column 6, lines 1-50) to use local data stored in the local file system (column 7, lines 13-18) and remote data from a virtual file system to support the processor (content stored at the central server instead of locally; column 7, lines 13-20 and lines 47-55) when the local file system is coupled to the DHCT (see Fig. 2; column 7, lines

13-18). While Payton discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2, lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Payton's system to include determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claim 58, Payton discloses a dual mode file method in a subscriber network system (Fig. 2), comprising the steps of:

using local data stored in the local file system (column 7, lines 13-18) and remote data from a virtual file system to support the processor (content stored at the central server instead of locally; column 7, lines 13-20 and lines 47-55) when the local file system is coupled to the DHCT (see Fig. 2; column 7, lines 13-18). While Payton discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2, lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Payton's system to include determining whether the local file system is coupled, and responsive to determining whether the local file system

is coupled, utilizing just the virtual file system or both the virtual file system and the local file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claims 3 and 60, Payton and Norwood disclose wherein the remote data and the local data includes media content (see Payton at column 4, lines 57-58).

As to claim 4, Payton and Norwood disclose wherein the local data is located in a local file system (Fig. 2; column 6, lines 1-19) and the remote data is located in a virtual file system (see Payton at Fig. 2; column 4, line 55-column 5, line 5 and 26-33).

As to claims 9 and 73, Payton and Norwood disclose wherein the processor is further configured with the logic to provide feedback to a user when the local file system is available (indicating if the content is locally available or not; see Payton at column 6, lines 31-33).

As to claims 10 and 74, Payton and Norwood disclose wherein the processor is further configured with the logic to transition from supporting the processor with data from the combination of the virtual file system and the local file system (see Payton at column 8, lines 11-25) to supporting the processor with data from the virtual file system when the logic detects that the local file system is unavailable (user requesting content

stored at the central server instead of locally; see Payton at column 7, lines 13-20 and lines 47-55).

As to claims 11 and 62, Payton and Norwood disclose wherein the logic is further configured to support the processor with data from the virtual file system (see Payton at column 7, lines 13-20 and lines 47-55) by receiving the data into the memory and causing playback from the virtual file system to a screen display (see Payton at column 7, lines 13-20 and lines 47-55, column 8, lines 11-21 and Fig. 5).

As to claims 12, 61 and 75, Payton and Norwood disclose wherein the processor is further configured with the logic to substantially simultaneously transfer data to the local file system (transmitting content from the refresh queue to local storage whenever bandwidth is available; see Payton at column 7, lines 36-56) while receiving additional data from the virtual file system to the memory (receiving an on-demand requested movie; see Payton at column 7, lines 13-20 and lines 47-55, column 8, lines 11-21 and Fig. 5).

As to claim 13, Payton and Norwood disclose wherein the logic is further configured to support the processor with data from the local file system by receiving the data into the memory (see Payton at column 7, lines 12-18), wherein the logic is further configured to cause playback from the memory to a screen display (see Payton at Fig. 5; column 8, lines 35-37 and lines 15-21).

As to claims 14 and 63, Payton and Norwood disclose wherein the logic is configured to support the processor with data from the local file system by streaming the data from the local file system to a display device (see Payton at Fig. 5; column 8, lines 35-37 and lines 15-21).

As to claims 16 and 77, Payton and Norwood disclose wherein the processor is further configured with the logic to store in the local file system data associated with a future media content instance (storing recommended movies in advance; see Payton at column 4, lines 8-22), wherein said data is received into the local file system in advance of the presentation of said future media content instance (see Payton at column 3, lines 18-42 and column 4, lines 8-22).

As to claims 17 and 78, Payton and Norwood disclose wherein the processor is further configured with the logic to receive data from the virtual file system to the local file system while substantially simultaneously uploading data from the local file system (simultaneously displaying and storing locally to allow pause and rewind; see Payton at column 8, lines 11-25).

As to claims 18 and 79, Payton and Norwood disclose wherein the processor is further configured with the logic to perform multiple read operations and multiple write

operations in parallel to access a plurality of data in the local file system (see Payton at column 7, lines 13-56 and column 8, lines 11-25).

As to claims 19 and 80, Payton and Norwood disclose wherein the multiple read operations and multiple write operations occur substantially concurrently within substantially the same window of time (see Payton at column 7, lines 13-56 and column 8, lines 11-25).

As to claims 20 and 81, Payton and Norwood disclose wherein the multiple read operations and multiple write operations share slices of a window of time as if occurring substantially in parallel (see Payton at column 7, lines 13-56 and column 8, lines 11-25).

As to claims 5-8 and 69-72, Payton and Norwood disclose detecting when the system is connected, disconnected, operable or inoperable (see Norwood at column 5, lines 23-42).

5. Claims 1, 4, 15, 21-36, 38, 48, 49, 58, 59, 64-68, 76, 82-92, 94, 102-103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels (6,973,669) (of record) in view of Norwood (5,983,316).

As to claim 1, Daniels discloses a dual mode file system in a subscriber network television system (column 4, lines 23-38 and column 24, lines 13-34), comprising:

a digital home communication terminal (see Fig. 1) comprising:

a memory with logic (computer software to control the system; column 15, lines 58-63 and column 23, lines 39-42);

a processor configured with the logic (controlling the system; column 15, lines 58-63) to use local data stored in the local file system (local stored pages; column 24, lines 11-24 and column 23, lines 39-50) and remote data from a virtual file system to support the processor (displaying remote Internet web pages and local stored pages; column 24, lines 11-24 and column 23, lines 39-50) when the local file system is coupled to the DHCT (see Fig. 1; column 24, lines 11-24 and column 23, lines 39-50).

While Daniels discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2, lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels' system to include determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claim 58, Daniels discloses a dual mode file system in a subscriber network television system (column 4, lines 23-38 and column 24, lines 13-34), comprising:

searching for local data (column 24, lines 11-38);

using local data stored in the local filed system and remote data from a virtual file system to support the processor (displaying remote Internet web pages when not locally stored; column 24, lines 11-24 and column 23, lines 39-50) when the local file system is coupled to the DHCT (see Fig. 1; column 24, lines 11-24 and column 23, lines 39-50).

While Daniels discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2,

lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels' system to include determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claim 4, Daniels and Norwood disclose wherein the local data is located in a local file system (see Daniels at column 24, lines 11-34) and the remote data is located in a virtual file system (see Daniels at column 24, lines 11-24 and column 23, lines 39-50).

As to claims 15 and 76, Daniels and Norwood disclose wherein the processor is further configured with the logic to receive data through an out of band channel (with a data tuner; see Daniels at Figs. 20-21 and column 26, lines 38-43).

As to claims 21 and 64, Daniels and Norwood disclose wherein the local file system comprises a storage device with media (see Daniels at column 10, lines 16-40), wherein the media is partitioned into a data portion with a data format storing data and low memory consumption media content (storing content during a "break"; see Daniels at column 10, lines 16-30) and a media content portion with a media content format for storing media content (second means for storing incoming content while user watches recorded content; see Daniels at column 10, lines 30-40).

As to claims 22 and 65, Daniels and Norwood disclose wherein the processor is further configured with the logic to receive the media content into the data portion (see Daniels at column 10, lines 16-30) unless the media content consumes a threshold memory capacity (extending past the time and storage needed for the break; see Daniels at column 10, lines 16-30) that results in the processor receiving the media content with at least the threshold memory capacity into the media content portion (see Daniels at column 10, lines 30-40).

As to claims 23 and 66, Daniels and Norwood disclose wherein the media is partitioned into a third media content portion for streaming media content for presentation to a user (third portion to properly store and playback after later breaks; see Daniels at column 14, line 37-column 15, line 11).

As to claims 24 and 82, Daniels and Norwood disclose wherein the media partitions are user configurable (user defined based upon the length of the user breaks; see Daniels at column 10, lines 16-40 and column 14, line 37-column 15, line 11).

As to claims 25 and 83, Daniels and Norwood disclose two tuners for receiving among a plurality of transmission channels (see Daniels at column 25, lines 3-13), further comprising an out of band channel for receiving and sending data (data tuner; see Daniels at Figs. 20-21 and column 26, lines 38-43), further comprising a communication port (see Daniels at column 23, lines 29-35).

As to claims 27 and 85, Daniels and Norwood disclose wherein the processor is further configured with the logic to request a plurality of data simultaneously from the plurality of the transmission channels (see Daniels at column 25, lines 3-13).

As to claims 28, Daniels and Norwood disclose wherein the memory and the local file system store application data (see Daniels at column 24, lines 11-24, column 26, lines 14-27 and column 27, lines 35-56), application executable programs (see Daniels at column 24, lines 11-24, column 26, lines 14-27 and column 27, lines 35-56), and data associated with applications (see Daniels at column 24, lines 11-24, column 26, lines 14-27 and column 27, lines 35-56), and data associated with media services (see Daniels at column 24, lines 11-24, column 26, lines 14-27 and column 27, lines 35-56).

As to claims 29 and 86, Daniels and Norwood disclose wherein the processor is further configured with the logic to perform a multiplicity of write operations to the local file system substantially in parallel to store data and application clients from a subscriber television network (see Daniels at column 7, line 48-column 8, line 8), from the processor, and from a local device connected to the communication port (see Daniels at column 23, lines 29-35).

As to claims 30 and 87, Daniels and Norwood disclose wherein the processor is further configured with the logic to perform a multiplicity of read operations from the local file system in parallel to retrieve data and application clients previously stored in the local file system (see Daniels at Fig. 14; column 25, lines 3-13) to transmit the respective data to a local device connected to the communication port (see Daniels at column 23, lines 29-35), to the memory for use by an application client or operating system executing in the processor (see Daniels at column 26, lines 14-27) and to be transmitted to a destination in the subscriber network (viewer preferences being sent to the television signal provider; see Daniels at column 26, lines 14-27).

As to claim 31, Daniels and Norwood disclose wherein the processor is further configured with the logic to perform a multiplicity of read operations from the local file system in parallel to retrieve data and application clients previously stored in the local file system (see Daniels at Fig. 14; column 25, lines 3-13) to transmit the respective

data to a local device connected to the communication port (the modem; see Daniels at column 23, lines 29-35), to the memory for use by an application client or operating system executing in the processor (see Daniels at column 26, lines 14-27) and to be transmitted to a destination outside the subscriber network (external web site; see Daniels at column 23, lines 29-35).

As to claims 32 and 88, Daniels and Norwood disclose wherein the processor is further configured with the logic to substantially simultaneously permanently record a media content instance received from one transmission channel and temporarily store a media content instance received from another transmission channel (see Daniels at column 2, lines 48-60, column 7, line 48-column 8, line 8 and column 6, lines 48-59).

As to claims 33 and 89, Daniels and Norwood disclose wherein the processor is further configured with the logic to substantially simultaneously permanently record a media content instance received from one transmission channel and temporarily store a media content instance received from another transmission channel (see Daniels at column 2, lines 48-60, column 7, line 48-column 8, line 8 and column 6, lines 48-59).

As to claims 34 and 90, Daniels and Norwood disclose wherein the processor is further configured with the logic to substantially simultaneously display three media content instances (see Daniels at Fig. 14; column 24, line 63-column 25, line 13 and column 22, line 48-column 23, line 15), wherein two media content instances are

received from the transmission channels (see Daniels at Fig. 14; column 24, line 63-column 25, line 13) and the third media content instance is received from the local file system (see Daniels at Fig. 14; column 24, line 63-column 25, line 13 and column 22, line 48-column 23, line 15).

As to claims 35 and 91, Daniels and Norwood disclose wherein the media content instances from the transmission channels are received in real-time (see Daniels at Fig. 14; column 24, line 63-column 25, line 13).

As to claims 36 and 92, Daniels and Norwood disclose an application client, wherein the processor is further configured with the logic to use the memory and the local file system for storing application client data in data structures with time sensitive data entries maintained by client daemon task (receiving and storing program scheduling information; see Daniels at Fig. 22; column 27, lines 35-47).

As to claims 38 and 94, Daniels and Norwood disclose wherein the processor is further configured with the logic to receive the application client data from a plurality of in band tuners (plurality of tuners to receive preview video for the guide; see Daniels at column 24, line 63-column 25, line 13).

As to claims 49 and 103, Daniels and Norwood disclose wherein the processor is further configured with the logic to retrieve hyper-linked data corresponding to a media

content instance before the presentation of the media content instance (see Daniels at column 24, lines 11-34).

As to claim 67, Daniels and Norwood disclose the step of receiving time sensitive data in the local file system and in a memory (link information related to particular moments in the presentation; see Daniels at column 4, lines 23-38 and column 24, lines 13-34), further comprising the step of storing the time sensitive data in a data structure indexed by time (received and stored in order; see Daniels at column 4, lines 23-38 and column 24, lines 13-34), further comprising the step of updating the data structure entries as the time indexes substantially elapse (storing link information for the later programs; see Daniels at column 4, lines 23-38 and column 24, lines 13-34), further comprising the step of retrieving the time sensitive data from the local file system and causing the presentation of the time sensitive data in coordination with the presentation of a media content instance (see Daniels at column 4, lines 23-38 and column 24, lines 13-34).

As to claims 48, 68 and 102, Daniels and Norwood disclose the step of receiving sprites from the virtual file system and storing the sprites in the local file system (web graphics; see Daniels at column 4, lines 23-38 and column 24, lines 1-34), further comprising the step of retrieving the sprites from the local file system and causing the presentation of the sprites in coordination with the presentation of a media content instance (see Daniels at column 4, lines 23-38 and column 24, lines 13-34).

As to claims 26 and 84, while Daniels and Norwood disclose a plurality of transmission channels, they fail to specifically disclose at least one digital transmission channel and at least one analog transmission channel.

The examiner takes Official Notice that it was notoriously well known in the art at the time of invention by applicant for a television receiver to utilize both an analog and digital transmission channel, such as when receiving both off-air television and digital satellite, for the typical benefit of providing a viewer with an increased amount of information and content by allowing access to both digital and analog content providers and connections.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels and Norwood's system to include at least one digital transmission channel and at least one analog transmission channel for the typical benefit of providing a viewer with an increased amount of information and content by allowing access to both digital and analog content providers and connections.

6. Claims 1, 4, 36, 37, 39-47, 58, 59, 92, 93 and 95-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (Schein) (6,002,394) (of record) in view of Norwood (5,983,316).

As to claim 1, Schein discloses a dual mode file system in a subscriber network television system (Fig. 1), comprising:

a digital home communication terminal comprising:

a memory with logic (column 6, lines 61-65);

a processor configured with the logic (column 6, lines 61-65) to use local data stored in the file system and remote data from a virtual file system to support the processor (column 5, lines 38-65) when the local file system is coupled to the DHCT (see Figs. 1 and 3).

While Schein discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2, lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Schein's system to include determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local

file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claim 58, Schein discloses a dual mode file method in a subscriber network television system (Fig. 1), comprising:

using local data stored in the file system and remote data from a virtual file system to support the processor (column 5, lines 38-65) when the local file system is coupled to the DHCT (see Figs. 1 and 3).

While Schein discloses using a virtual file system with remote data and a local file system with local data to support the processor, he fails to specifically disclose determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system.

In an analogous art, Norwood discloses a computer storage system (Fig. 1) wherein a disk monitor will determine whether local file systems (disk drives; column 2, lines 38-48) are currently coupled and available for use by the system (column 2, lines 28-38 and column 5, lines 22-42) to allow the system to dynamically determine which resources are currently available (column 2, line 28-column 3, line 14) for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly (see Abstract and column 2, line 28-column 3, line 14 and column 1, lines 8-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Schein's system to include determining whether the local file system is coupled, and responsive to determining whether the local file system is coupled, utilizing just the virtual file system or both the virtual file system and the local file system, as taught by Norwood, for the typical benefit of allowing the computer system to dynamically determine status changes in available storage resources and operate accordingly.

As to claim 4, Schein and Norwood disclose wherein the local data is located in a local file system (see Schein at column 5, lines 38-65) and the remote data is located in a virtual file system (remote EPG database; see Schein at column 5, lines 38-65).

As to claims 36 and 92, Schein and Norwood disclose an application client, wherein the processor is further configured with the logic to use the memory and the local file system for storing application client data in data structures with time-sensitive data entries maintained by an application client daemon task (local database storing a program guide with channel and time entries for programs; see Schein at column 7, lines 16-45 and column 9, line 22-column 10, line 28).

As to claims 37 and 93, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the application client data from an in-band

tuner (received with the video signals; see Schein at column 6, line 51-column 7, line 10).

As to claims 39 and 95, Schein and Norwood disclose wherein the application client is an electronic programming guide with electronic program guide information (see Schein at column 7, lines 16-45 and column 9, line 22-column 10, line 28), wherein the electronic programming guide information includes a list of media content instances for a standard amount of days (see Schein at column 9, line 22-column 10, line 28), a list of media content instances for an extended amount of days (see Schein at column 9, line 22-column 10, line 28), channels for the media content instances (see Schein at column 9, line 22-column 10, line 28), standard description information for the media content instances (see Schein at column 9, line 22-column 10, line 28), long description information for the media content instances (see Schein at column 9, line 22-column 10, line 28), and media content instance preview audio and video clips (see Schein at column 22, lines 3-9).

As to claims 40 and 96, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the electronic programming guide information entirely into the memory (see Schein at column 9, lines 22-62), wherein the processor is further configured with the logic to access the electronic programming guide information for presentation in a display device (see Schein at column 14, lines 18-33).

As to claims 41 and 97, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the electronic programming guide information entirely into the local file system (see Schein at column 9, lines 22-62), wherein the processor is further configured with the logic to access the electronic programming guide information for presentation in a display device (see Schein at column 14, lines 18-33).

As to claim 42, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the list of media content instances for an extended amount of days and the corresponding standard description information into the local file system (see Schein at column 9, line 22-column 10, line 28).

As to claim 43, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the list of media content instances for an extended amount of days and the corresponding standard description information and long description information into the local file system (see Schein at column 9, line 22-column 10, line 28).

As to claims 44 and 98, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the long description information into the local file system for the list of media content instances for the standard amount of days stored in the memory (see Schein at column 9, line 22-column 10, line 28).

As to claims 45 and 99, Schein and Norwood disclose wherein the processor is further configured with the logic to receive the media content instance previous audio and data clips associated with the media content instances for the standard amount of days and store said media content instance preview audio and data clips into the memory (see Schein at column 9, line 22-column 10, line 28 and column 22, lines 3-9).

As to claims 46 and 100, Schein and Norwood disclose wherein the processor is further configured with the logic to transfer said media content instance previous audio and data clips from the memory to the local file system (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9), wherein the processor is further configured with the logic to access said media content instance preview audio and data clips from the local file system to the memory (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9), wherein the processor is further configured with the logic to present said media content preview audio and data clips on a display device from the memory (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9).

As to claims 47 and 101, Schein and Norwood disclose wherein the processor is further configured with the logic to transfer said media content instance previous audio and data clips from the memory to the local file system (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9), wherein the processor is further

configured with the logic to access said media content instance preview audio and data clips from the local file system (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9) and present said media content preview audio and data clips on a display device from the local file system (see Schein at Fig. 3; column 8, line 35-column 9, line 22 and column 22, lines 3-9).

7. Claims 111-118, 120, 122-126 and 128 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels in view of Shimoji et al. (Shimoji) (6,757,911) (of record).

As to claims 120 and 128, while Daniels discloses wherein the hyper-linked data is maintained in entries in a hyper-linked data structure (column 24, lines 11-34), he fails to specifically disclose wherein the data structure is indexed by time and date and service.

In an analogous art, Shimoji discloses a broadcast distribution system (Fig. 4) which associates hyper-linked content with broadcast content (column 12, lines 9-23) wherein the hyper-linked content is indexed by date, time and service (Fig. 7, Fig. 15, column 17, lines 24-35, column 19, lines 1-7, column 23, lines 7-43) for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods (column 14, lines 3-12 and column 17, lines 24-35).

It would have been obvious to obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels system to include wherein the data structure is indexed by time and date and service, as taught by Shimoji, for the typical

benefit of ensuring that the receiver can properly navigate between content for specific time periods.

As to claims 111 and 122, while Daniels discloses wherein the hyper-linked data is maintained in entries in a hyper-linked data structure (column 24, lines 11-34), he fails to specifically disclose wherein the data structure is indexed by time and date and channel.

In an analogous art, Shimoji discloses a broadcast distribution system (Fig. 4) which associates hyper-linked content with broadcast content (column 12, lines 9-23) wherein the hyper-linked content is indexed by date, time and channel (Fig. 7, Fig. 15, column 17, lines 24-35, column 19, lines 1-7, column 23, lines 7-43) for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods (column 14, lines 3-12 and column 17, lines 24-35).

It would have been obvious to obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels system to include wherein the data structure is indexed by time and date and channel, as taught by Shimoji, for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods.

As to claims 112 and 124, Daniels and Shimoji disclose wherein the hyper-linked data entries are valid for a specific time (see Daniels at column 27, lines 1-20 and Shimoji at Fig. 7), after which said hyper-linked data associated with an elapsed data

entry is replaced with a replacement hyper-linked data that also is valid for a specific time (storing new time dependent commercial information; see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claims 113, 114 and 125, Daniels and Shimoji disclose wherein the hyper-linked data structure provides a channel directory (Fig. 15 and column 23, lines 7-43) and subdirectories segregated into time blocks corresponding to the media content instance time period of presentation, wherein the time blocks include a current time block and an upcoming time block (see Shimoji at Fig. 7 and column 19, lines 1-7 and lines 40-46).

As to claim 115, Daniels and Shimoji disclose wherein the current time block and upcoming time block are further segregated into time slots of increased granularity corresponding to the time presentation of the hyper-linked data with a corresponding instance in a media content instance within said time blocks (see Shimoji at Fig. 7 and column 19, lines 1-7 and lines 40-46).

As to claims 116 and 123, Daniels and Shimoji disclose wherein the hyperlinked data structure is updated continuously by the application client to maintain the hyperlinked data for current upcoming media content instances (see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claim 117, Daniels and Shimoji disclose wherein the application client is further configured to update the hyper linked data when the time and date has substantially elapsed (new content for next program; see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claims 118 and 126, Daniels and Shimoji disclose wherein the application client is further configured to use the local file system for caching hyperlinked data into the local file system from the virtual file system (see Daniels at column 24, lines 11-24 and column 27, lines 1-20), wherein the hyperlinked data corresponds to data located in a designated time slot of a presentation of a media content instance (see Daniels at column 24, lines 11-24 and column 27, lines 1-20), wherein the application is further configured to retrieve the hyper linked data from the local file system and present it during its designated time slot during the presentation of the media content instance (see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

8. Claims 50-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels and Norwood and further in view of Shimoji et al. (Shimoji) (6,757,911) (of record).

As to claim 50, while Daniels and Norwood disclose wherein the hyper-linked data is maintained in entries in a hyper-linked data structure (see Daniels at column 24, lines 11-34), they fail to specifically disclose wherein the data structure is indexed by time and date and service.

In an analogous art, Shimoji discloses a broadcast distribution system (Fig. 4) which associates hyper-linked content with broadcast content (column 12, lines 9-23) wherein the hyper-linked content is indexed by date, time and service (Fig. 7, Fig. 15, column 17, lines 24-35, column 19, lines 1-7, column 23, lines 7-43) for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods (column 14, lines 3-12 and column 17, lines 24-35).

It would have been obvious to obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels and Norwood's system to include wherein the data structure is indexed by time and date and service, as taught by Shimoji, for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods.

As to claim 51, while Daniels and Norwood disclose wherein the hyper-linked data is maintained in entries in a hyper-linked data structure (see Daniels at column 24, lines 11-34), they fail to specifically disclose wherein the data structure is indexed by time and date and channel.

In an analogous art, Shimoji discloses a broadcast distribution system (Fig. 4) which associates hyper-linked content with broadcast content (column 12, lines 9-23) wherein the hyper-linked content is indexed by date, time and channel (Fig. 7, Fig. 15, column 17, lines 24-35, column 19, lines 1-7, column 23, lines 7-43) for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods (column 14, lines 3-12 and column 17, lines 24-35).

It would have been obvious to obvious to one of ordinary skill in the art at the time of invention by applicant to modify Daniels and Norwood's system to include wherein the data structure is indexed by time and date and channel, as taught by Shimoji, for the typical benefit of ensuring that the receiver can properly navigate between content for specific time periods.

As to claim 52, Daniels, Norwood and Shimoji disclose wherein the hyper-linked data entries are valid for a specific time (see Daniels at column 27, lines 1-20 and Shimoji at Fig. 7), after which said hyper-linked data associated with an elapsed data entry is replaced with a replacement hyper-linked data that also is valid for a specific time (storing new time dependent commercial information; see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claim 53, Daniels, Norwood and Shimoji disclose wherein the hyper-linked data structure provides a channel directory (Fig. 15 and column 23, lines 7-43) and subdirectories segregated into time blocks corresponding to the media content instance time period of presentation, wherein the time blocks include a current time block and an upcoming time block (see Shimoji at Fig. 7 and column 19, lines 1-7 and lines 40-46).

As to claim 54, Daniels, Norwood and Shimoji disclose wherein the current time block and upcoming time block are further segregated into time slots of increased granularity corresponding to the time presentation of the hyper-linked data with a

corresponding instance in a media content instance within said time blocks (see Shimoji at Fig. 7 and column 19, lines 1-7 and lines 40-46).

As to claim 55, Daniels, Norwood and Shimoji disclose wherein the hyperlinked data structure is updated continuously by the application client to maintain the hyperlinked data for current upcoming media content instances (see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claim 56, Daniels, Norwood and Shimoji disclose wherein the application client is further configured to update the hyper linked data when the time and date has substantially elapsed (new content for next program; see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

As to claim 57, Daniels, Norwood and Shimoji disclose wherein the application client is further configured to use the local file system for caching hyperlinked data into the local file system from the virtual file system (see Daniels at column 24, lines 11-24 and column 27, lines 1-20), wherein the hyperlinked data corresponds to data located in a designated time slot of a presentation of a media content instance (see Daniels at column 24, lines 11-24 and column 27, lines 1-20), wherein the application is further configured to retrieve the hyper linked data from the local file system and present it during its designated time slot during the presentation of the media content instance (see Daniels at column 24, lines 11-24 and column 27, lines 1-20).

Response to Arguments

9. Applicant's arguments with respect to claims 1, 3-58 and 60-103 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments with respect to claims 104-128 have been fully considered but they are not persuasive.

a. In response to applicant's arguments in regards to claim 104, Daniels specifically discloses utilizing locally stored web pages when they are available in the local file system (column 24, lines 11-37). If the user selects a web-page which is unavailable locally, the system will transition from local storage to other web pages which are not stored locally (column 24, lines 11-37), thus meeting the claim limitations.

b. In response to applicant's arguments in regards to claims 109 and 121, Daniels specifically discloses wherein received hyperlink data is stored in local storage (column 24, lines 11-37). Stored data clearly meets the claim limitation of a "data structure", as the claim provides no specific limitation as to the *type* of structure.

Furthermore, Daniels specifically discloses wherein the pages are downloaded and cached during reception of the program (column 24, lines 11-21) to provide information about the current section of the program (column 23, lines 35-50).

Thus the data is indexed by time of presentation, as the data is downloaded and stored as they are received, during the normal presentation of the program.

c. In response to applicant's traversal of the Official Notices presented for claims 5-8 and 69-72, it is noted that the current rejections provide Norwood as specifically disclosing all of these claimed features.

d. In response to applicant's traversal of the Official Notices presented for claims 26 and 84, applicant is directed to Rasson et al. (6,137,549) and Basawapatna et al. (6,598,231) which disclose that it was well known to receive both analog and digital channels.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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